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PRELIMINARY DATA

PINE BUTTERFLY FIELD EXPERIMENT
BITTERROOT NATIONAL FOREST
June 1973

USDA - Forest Service, Northern Region
Division of State and Private Forestry

Table 1.--Zectran field experiment, pine butterfly,
Bitterroot National Forest, June 1973

Dosage	Replicate	Prespray population density*	4-day postspray population density*	Percent reduction**
0.15 lb./acre	Mill Creek	0.9189	0.0554	92.82
	Bear Creek	.2787	.0001	99.95
	Smith Creek	1.0256	.0081	99.06
	Mean	.7410	.0213	96.58
0.30 lb./acre	Blodgett Cr.	.3602	.0213	99.08
	Big Creek	.7049	.0199	96.64
	Canyon Cr.	.2317	.0149	92.35
	Mean	.4836	.0131	96.77

* Number of larvae per inch of foliated branch.

**Corrected for natural mortality in check blocks. Survival ratio in check blocks was 0.8399.

Table 2.--*Bacillus thuringiensis* field experiment, pine butterfly,
Bitterroot National Forest, June 1973

Dosage	Replicate	Prespray population density*	Percent reduction**			12-day postspray population density*
			4-day Postspray	8-day Postspray	12-day Postspray	
$\frac{1}{2}$ lb B.t./acre	Fish Creek	0.3019	82.56	77.83	81.33	0.0367
	E. Sweeney	.1505	88.81	58.22	67.69	.0317
	W. Sweeney	.0742	58.31	79.42	38.63	.0247
	Treatment mean	.1758	83.04	77.27	72.96	.0310
1 lb B.t./acre	S. Bear	.2091	85.99	80.52	93.60	.0065
	Blodgett	.2613	78.77	94.77	93.66	.0183
	Sawdust	.2154	78.87	89.27	89.23	.0162
	Treatment mean	.2288	79.36	91.12	92.16	.0137

* Number of larvae per inch of foliated branch.

**Corrected for natural mortality in check blocks. Survival ratios in check blocks were: 0.9256 (4-day)
.7783 (8-day)
.6519 (12-day)

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